

**Before the  
FEDERAL COMMUNICATIONS COMMISSION  
Washington, D.C. 20554**

<b>In the Matter of</b>	)	
	)	
<b>Petition for Forbearance from E911 Accuracy Standards Imposed on Tier III Carriers</b>	)	<b>WT Docket No. 02-377</b>
	)	

**To: The Wireless Telecommunications Bureau**

**COMMENTS**

Rural Cellular Association (“RCA”)<sup>1</sup>, by its attorneys, respectfully submits these Comments in response to the invitation of the Wireless Telecommunications Bureau (“the Bureau”)<sup>2</sup> to comment on the Petition for Forbearance from E911 Accuracy Standards Imposed on Tier III Carriers (“Petition”) filed with the Federal Communications Commission (“FCC” or “Commission”) by the Tier III Coalition (“TierIIICo”) on November 20, 2002. The Petition seeks temporary relief for Tier III carriers from compliance with the FCC’s wireless enhanced 911 (“E911”) Phase II location accuracy standards. Tier III carriers are defined as non-nationwide carriers that had under 500,000 subscribers as of year-end 2001.<sup>3</sup>

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1 RCA is an association representing the interests of small and rural wireless licensees providing commercial services to subscribers throughout the nation. Its member companies provide service in more than 135 rural and small metropolitan markets where approximately 14.6 million people reside. RCA was formed in 1993 to address the distinctive issues facing wireless service providers.

2 *Wireless Telecommunications Bureau Seeks Public Comment on Petition for Forbearance from E911 Accuracy Standards Imposed on Tier III Carriers*, Public Notice, WT Docket No. 02-377, DA 02-3470, released December 17, 2002.

3 *Revision of the Commission’s Rules to Ensure Compatibility with Enhanced 911 Emergency Calling Systems*, CC Docket No. 94-102 (Order to Stay), 2002 FCC LEXIS 3638, FCC 02-210 (2002) (“*Phase II Stay Order*”).

## **I. Introduction**

RCA supports the effort of TierIII Co to obtain relief from the strict quantitative requirements imposed by Sections 20.18(h)(1) and (2) of the Commission's Rules with respect to the Commercial Mobile Radio Service ("CMRS") provided by Tier III wireless carriers. RCA supports the grant of relief through the requested period, ending December 31, 2005. Subject to exceptions where carrier relief is needed under special circumstances, RCA supports the proposal that the FCC forbear from pursuing enforcement action against Tier III carriers who are unable to achieve the precise accuracy levels set forth in Section 20.18.<sup>4</sup>

## **II. E911 Phase II Accuracy Relief in Rural Areas Would Promote Phase II Deployment**

In the recently concluded proceeding on the Report on Technical and Operational Issues Impacting the Provision of Wireless Enhanced 911 Services by Dale N. Hatfield ("Hatfield Report"), in Docket WT 02-46, RCA and other Commenters substantiated the unique obstacles to fulfilling the FCC's E911 requirements in rural areas, explaining that existing technology for Phase II location is impractical for use in rural areas. Network-based solutions involving Time Difference of Arrival ("TDOA") and Angle of Arrival ("AOA") are not conducive to the linear, dispersed base station arrangement of rural systems, and rural carriers are not able to average accuracy results with urban areas. Location prediction mapping utilizing existing network parameters in rural areas has confirmed that such solutions do not meet the FCC's requirements for location accuracy in rural areas. At the same time rural carriers are disadvantaged at recovering costs from a smaller subscriber base, one which is particularly resistant to price hikes and surcharges. The carriers

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<sup>4</sup> FCC Rule Section 20.18(h) presently sets forth a standard for Phase II location accuracy and reliability of 100 meters for 67 percent of calls and 300 meters for 95 percent of calls for carriers deploying network-based technologies and 50 meters for 67 percent of calls and 150 meters for 95 percent of calls for carriers deploying handset-based technologies. 47 C.F.R. §20.18(h).

cannot afford to add base stations solely to assist triangulation methods for location accuracy, nor can they economically provide new Phase II-capable handsets free to subscribers.

Meanwhile, leasing and zoning problems increasingly make a scarce resource of base station towers, and handsets are not available for the analog and Time Division Multiple Access (“TDMA”) systems in use in many rural areas. RCA has a member company who would literally have to shut down its analog system in a very remote area of a rural state if it is required to comply with the letter of the E911 Phase II mandates. TDMA operating members are struggling to replace obsolete networks. They, too, would benefit from a reprieve from having to add unnecessarily to their stranded investments. RCA would welcome any action by the FCC to alleviate a portion of the regulatory burden of Phase II, which so strains the resources of rural carriers.

As part of a plan to enable rural carriers to implement Phase II services, RCA supports the suggestion of TierIII Co that the FCC adopt a policy by which it will forbear from enforcing the existing accuracy standard in rural markets. In rural areas the accuracy standard can be substantially lower than it is in urban areas, and safety personnel will still have as good or better a chance of locating the caller. Public safety is served well by the offering of the best location services possible in rural areas. Without accuracy standards relief, rural carriers will not be able to comply, and so the FCC will likely face a surge of waiver and extension requests from carriers seeking to delay Phase II implementation until a lawful system can be installed.

The proposal set forth by TierIII Co is reasonable in providing that during the period of forbearance rural wireless carriers which deploy network-based solutions would use existing antenna systems at existing sites to provide location data in timely response to Public Safety Answering

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Point (“PSAP”) requests. PSAPs would be kept informed of predicted accuracy with updated maps for the service area and reports of E911 location activity. Data on the distance between the provided location and the actual location of the 911 caller (and the time required by emergency personnel to locate the caller, if available) could be provided to the FCC for evaluation of real world conditions. This information could be used to develop an equitable accuracy standard for rural markets, one that would be sustainable after the period of forbearance has ended.

Also reasonable is TierIII Co’s proposal that rural wireless carriers which deploy handset-based solutions would likewise be granted limited forbearance from the Phase II accuracy standards of Section 20.18(h) and be subject to the proposed reporting requirements. Because of the high percentage of vehicular-based service provided by rural carriers to portable handsets that lack external antennas, and because of the complete lack of control by carriers over the position determination capability of ALI-enabled handsets dependent on line-of-sight contact with the satellite, relief from the accuracy standards is essential to the deployment of Phase II location services in rural markets. Without FCC forbearance from enforcement of the accuracy standards for handset-based solutions, many rural carriers will be forestalled from attempting to implement a handset-based solution. While individual waiver requests could be filed with the Commission, an FCC policy of forbearance would significantly encourage the development of handset-based solutions in rural areas, and would in fact foster real world implementation and study through 2005.

### **III. Present Day Location Accuracy Technology Warrants FCC Forbearance**

The technological limitations on reaching Phase II accuracy requirements in rural areas are unique. The accuracy of the alternative handset-based solution is muted by dense foliage and certain geographic features, yet the solution can cost \$1,000,000 to deploy, not including the handset units.

Network solutions present separate challenges in systems that include rugged terrain, maximum cell separation, minimum contour overlap and even single-cell designs. Phase II services can be assisted by installation of location measurement units at extra sites, but only at extra expense of about \$15,000 to \$40,000 per site. Each new site also requires special access circuits, subject to monthly recurring fees, for transfer of data back to the carrier's switch. Triangulation at border areas requires the cooperation of adjacent carriers in vendor selection and Phase II deployment technology, adding still another layer of complexity to the effort and challenge to accuracy of the results.

Some RCA members report they have not been able to find a company that provides a reliable demonstration that its product meets the accuracy requirements in a rural environment with either a handset or network solution. Some firms admit that FCC accuracy levels cannot be achieved. Others who claim to have met the standards are typically averaging their urban and rural trials. Test bed predictions, however, are no match for the real world of rural environs, where accuracy compliance is simply not yet possible in many if not most situations.

Admittedly, a flexible framework for accuracy testing methods and procedures is provided by the guidelines within Office of Engineering and Technology Bulletin 71 ("OET 71"). The Commission has also provided a safety valve with its "best practice" approach for non-ALI-capable handsets, set forth in Section 20.18(g)(3) of FCC Rules. However, only overt forbearance from enforcement will fulfill the Commission's intent to provide rural carriers with protection from FCC liability when testing does not bear out and handsets do not perform. Enforcement, on the other hand, will require carriers to make demands of a lame technology, even at the risk of timing out the 911 call altogether, so that it drops during the repeated attempts to achieve location accuracy.

As an alternative, OET 71 could be amended to include more specific guidelines for

accuracy testing in rural markets, or the accuracy requirements could be amended for rural carriers. In fact, these proposals should be adopted, but the specifics would have to be addressed in a separate proceeding. TierIII Co's subject request for forbearance offers the Commission a practical means by which to provide needed relief to rural carriers from the existing Phase II accuracy requirements. The proposal is procedurally sound, and it protects public safety interests by adhering to Phase II schedules while promoting nascent use of location technology in rural markets.

**IV. A Wireless Carrier's Inability to Meet Phase II Location Accuracy Standards and Comply with FCC Rules Can Result in Default under Commercial Loan Terms**

Rural and small market wireless carriers that are RCA members typically rely on commercial loans to obtain a portion of the capital necessary for construction and operation of their systems. Such companies are not publicly held, and they do not have the ability to raise capital through the public sale of securities as do larger wireless carriers.

The terms of many commercial loans include provisions that place the borrower in a default status if it fails to comply with FCC rules. To the extent that a carrier becomes subject to Phase II deployment requirements and cannot meet location accuracy standards, that carrier is subject to the default provisions of its loan agreement and the consequences that ensue therefrom. RCA submits that it is not in the public interest to jeopardize the continuity of service provided by rural market wireless carriers, and that the Commission should act favorably on the TierIII Co forbearance request so that carriers serving rural markets are not subject to default terms of their loan agreements for reasons beyond their control.

**V. TierIII Co's Petition Satisfies the Requirements of Section 10 of the Communications Act**

FCC enforcement of the Phase II location accuracy requirements is not necessary to ensure

just and reasonable pricing and practices in rural wireless markets. Nor is it necessary to protect consumers, who would actually benefit from rural carriers being permitted to offer the highest accuracy standard attainable rather than none at all during periods of individual carriers' waivers. Encouraging rural carriers to implement Phase II services under accuracy forbearance serves the public interest by fostering the delivery of the best technological services available in rural areas, thereby promoting safety and scientific advances in location technology. The Commission's election to forbear would thus be in keeping with Section 10 of the Communications Act, 47 U.S.C. §160.

Temporary forbearance is consistent with the public interest for competitive and technical reasons. Rural carriers will be better able to offer competitive pricing if they are not obligated to imprudently invest in expensive and unproven Phase II location accuracy infrastructure designed for urban applications. While location services will be timely deployed by most rural carriers, the means selected for achieving accuracy will be within carriers' control during the forbearance period, enhancing carriers' ability to meet other unfunded federal mandates and to deliver advantageously priced services to the public. At the same time accuracy methods can be tested, and achievable parameters for rural systems can be identified. Public safety in rural areas will ultimately be advanced by the FCC's temporary forbearance of location accuracy standards in rural markets.

## **VI. Conclusion**

Due to the lack of commercially available Phase II-compliant E911 location systems that can be deployed in rural service areas in satisfaction of Section 20.18(h) accuracy standards, and because the proposal under consideration would provide for substantial compliance with the requirements of Phase II mandates in rural areas, RCA recommends that the FCC grant the

Petition of TierIII Co and exercise the requested forbearance through December 31, 2005.

Respectfully submitted,

**RURAL CELLULAR ASSOCIATION**

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January 24, 2003

## CERTIFICATE OF SERVICE

I, Loren Costantino, an employee in the law offices of Lukas, Nace, Gutierrez & Sachs, Chartered, do hereby certify that I have on this 24<sup>th</sup> day of January, 2003, sent by hand-delivery, a copy of the foregoing COMMENTS to the following:

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